Mr. Blair Wieland
R. M. Wieland Co.
P.O. Box 1000
Grabill, IN 46741

Re: 003-10777
Minor Source Modification to:
Part 70 permit No.: T 003-7733-00169

Dear Mr. Wieland:

R. M. Wieland Co. was issued Part 70 operating permit T 003-7733-00169 on February 19, 1999 for a wood furniture manufacturing source. An application to modify the source was received on March 22, 1999. Pursuant to 326 IAC 2-7-10.5 the following emission units are approved for construction at the source:

(a) One (1) spray booth, known as E31, equipped with HVLP spray applicators and dry filters for overspray control, exhausted through Stack S14, capacity: 180 square feet of wood furniture per hour.

and the following insignificant activities:

(b) Two (2) drying ovens, known as E32 and E33, exhausted through Stack S4, capacity: 180 square feet of wood furniture per hour, each.

(c) One (1) air dry cabinet, known as E34, exhausted through Stack S4, capacity: 180 square feet of wood furniture per hour, capacity: 180 square feet of wood furniture per hour.

(d) Five (5) downdraft sanding tables, known as E35 - E39, equipped with dual dry filters for particulate matter control, exhausted through Stacks S15 - S19, capacity: 180 square feet of wood furniture per hour. (326 IAC 6-3)

(e) Five (5) HVLP spray applicators for coating wood furniture.

The following construction conditions are applicable to the proposed project:

General Construction Conditions

1. The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Management (OAM).

2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(i), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

6. Pursuant to 326 IAC 2-7-10.5(l) the emission units constructed under this approval shall not be placed into operation prior to revision of the source's Part 70 Operating Permit to incorporate the required operation conditions.

The proposed operating conditions applicable to these emission units are attached to this Source Modification approval. These proposed operating conditions shall be incorporated into the Part 70 operating permit as an administrative amendment in accordance with 326 IAC 2-7-10.5(l)(1) and 326 IAC 2-7-11.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter contact Mark L. Kramer, c/o OAM, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, at 516-691-3395 or in Indiana at 1-800-451-6027 (ext 516-691-3395).

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Management

Attachments
MLK/MES
cc: File - Allen County
U.S. EPA, Region V
Allen County Health Department
Air Compliance Section Inspector - Jennifer Schick
Compliance Data Section - Karen Nowak
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michele Boner

PART 70 OPERATING PERMIT
and ENHANCED NEW SOURCE REVIEW
OFFICE OF AIR MANAGEMENT

R. M. Wieland Co.
13737 Main Street
and
13802 Sawmill Road
Grabill, Indiana 46741

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 and 326 IAC 2-1-3.2 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T003-7733-00169	
Issued by: Janet G. McCabe, Assistant Commissioner Office of Air Management	Issuance Date: February 19, 1999
First Minor Source Modification 003-11777	Pages Affected: 6, 29 - 33 Section Added D.4 on Page 41a
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

TABLE OF CONTENTS

filters for particulate control, and exhausting to stack S3.

(i) One (1) spray booth, known as E31, equipped with HVLP spray applicators and dry filters for overspray control, exhausted through Stack S14, capacity: 180 square feet of wood furniture per hour.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

Other activities or categories not previously identified with potential, uncontrolled emissions equal to or less than thresholds require listing only. Pb 0.6 ton per year or 3.29 pounds per day, SO2 5 pounds per hour or 25 pounds per day. NOx 5 pounds per hour or 25 pounds per day, CO 25 pounds per day, PM 5 pounds per hour or 25 pounds per day, VOC 3 pounds per hour or 15 pounds per day.

(a) Woodworking processes in the furniture manufacturing plant, primarily for design purposes. (326 IAC 6-3).

(b) Five (5) downdraft sanding tables, known as E35 - E39, equipped with dual dry filters for particulate matter control, exhausted through Stacks S15 - S19, capacity: 180 square feet of wood furniture per hour. (326 IAC 6-3)

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

(a) It is a major source, as defined in 326 IAC 2-7-1(22);

(b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

(a) One (1) sealer coat spray booth, identified as E12, with a maximum capacity of 445.21 pounds of wood pieces per hour, using dry filters for particulate control, and exhausting to stack S1.

(b) One (1) top coat spray booth, identified as E13, with a maximum capacity of 445.21 pounds of wood pieces per hour, using dry filters for particulate control, and exhausting to stack S2.

(c) One (1) finish coat spray booth, identified as E14, with a maximum capacity of 222.6 pounds of wood pieces per hour, using dry filters for particulate control, and exhausting to stack S3.

(d) Six (6) adhesive spray guns, two (2) high volume-low pressure (HVLP), identified as E1 and E2, and four (4) air atomized, identified as E11, E15, E16, and E17, each with a maximum capacity of 400 square feet of foam glued per hour, exhausting to vent V8.

(e) Four (4) adhesive spray guns, air atomized, identified as E3, E4, E5, and E6, each with a maximum capacity of 400 square feet of foam glued per hour, exhausting to vent V6.

(f) Five (5) adhesive spray guns, air atomized, identified as E7, E8, E9, E10 and E29, each with a maximum capacity of 400 square feet of foam glued per hour, exhausting to vent V7.

(i) One (1) spray booth, known as E31, equipped with HVLP spray applicators and dry filters for overspray control, exhausted through Stack S14, capacity: 180 square feet of wood furniture per hour.

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 Volatile Organic Compounds (VOC) [326 IAC 8]

Any change or modification which may increase potential emissions from the surface coating operation, shall require prior approval from the OAM to determine applicability requirements of 326 IAC 8, before such change may occur.

D.1.2 Wood Furniture NESHAP [40 CFR 63, Subpart JJ]

(a) The wood furniture coating operation is subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP), 326 IAC 20-14, (40 CFR 63, Subpart JJ), with a compliance date of December 7, 1998.

(b) Pursuant to 40 CFR 63, Subpart JJ, the wood furniture coating operations shall comply with the following conditions:

(1) Limit the Volatile Hazardous Air Pollutants (VHAP) emissions from finishing operations as follows:

(A) Achieve a weighted average volatile hazardous air pollutant (VHAP) content across all coatings of one (1.0) pound VHAP per pound solids, as applied; or

(B) Use compliant finishing materials in which all stains, washcoats, sealers, topcoats, basecoats and enamels have a maximum VHAP content of one (1.0) pound VHAP per pound solid, as applied. Thinners used for on-site formulation of washcoats, basecoats, and enamels have a three percent (3.0%) maximum VHAP content by weight. All other thinners have a ten percent (10.0%) maximum VHAP content by weight; or

(C) Use a control device to limit emissions to one (1.0) pound VHAP per pound solids; or

(D) Use any combination of (A), (B), and (C).

(2) Limit VHAP emissions from contact adhesives as follows:

(A) Use compliant contact adhesives as follows:

(i) For foam adhesives used in products that meet the upholstered seating flammability requirements, the VHAP content shall not exceed 1.8 pound VHAP per pound solids;

(ii) For all other contact adhesives (except aerosols and contact adhesives applied to nonporous substrates) the VHAP content shall not exceed one (1.0) pound VHAP per pound solids;

or

(B) Use a control device to limit emissions to one (1.0) for existing pound VHAP per pound solids.

(3) The strippable spray booth material shall have a maximum VOC content of eight-tenths (0.8) pounds VOC per pound solids.

D.1.3 Work Practice Standards [40 CFR 63.803]

The owner or operator of an affected source subject to this subpart shall prepare and maintain a written work practice implementation plan within sixty (60) calendar days after the compliance date. The work practice implementation plan must define environmentally desirable work practices for each wood furniture manufacturing operation and at a minimum address each of the following work practice standards as defined under 40 CFR 63.803:

(a) Operator training course.
(b) Leak inspection and maintenance plan.
(c) Cleaning and washoff solvent accounting system.
(d) Chemical composition of cleaning and washoff solvents.
(e) Spray booth cleaning.
(f) Storage requirements.
(g) Conventional air spray guns shall only be used under the circumstances defined under 40 CFR 63.803(h).
(h) Line cleaning.
(i) Gun cleaning.
(j) Washoff operations.
(k) Formulation assessment plan for finishing operations.

D.1.4 Particulate Matter (PM) [326 IAC 6-3-2(c)]

The PM from each of the coating spray booths, E12, E13, E14 and E31, shall each not exceed the pound per hour emission rate established as E in the following formula:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.1.5 Volatile Organic Compounds (VOC) [326 IAC 8-2-12]

Pursuant to 326 IAC 8-2-12 (Wood Furniture and Cabinet coating), the surface coatings applied to wood furniture and/or wood components in spray booth, E31, shall utilize one or more of the following application methods:

Airless Spray Application	Air-Assisted Airless Spray Application
Electrostatic Spray Application	Electrostatic Bell or Disc Application
Heated Airless Spray Application	Roller Coating
Brush or Wipe Application	Dip-and-Drain Application
High-Volume Low-Pressure HVLP	Aerosol Spray Cans

High-volume low-pressure spray is an acceptable alternative application of air-assisted airless spray. High-volume low-pressure (HVLP) spray means technology used to apply coating to a substrate by means of coating application equipment which operates between one-tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.

D.1.6 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any control devices.

Compliance Determination Requirements

D.1.7 Testing Requirements [326 IAC 2-7-6(1),(6)] [40 CFR 63]

(a) Pursuant to 40 CFR 63, Subpart JJ, if the Permittee elects to demonstrate compliance using 63.804(a)(3) or 63.804(c)(2) or 63.804(d)(3) or 63.804(e)(2), performance testing must be conducted in accordance with 40 CFR 63, Subpart JJ and 326 IAC 3-6.

(b) The Permittee is not required to test these facilities by this permit. IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the VOC limit specified in Condition D.1.2 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

D.1.8 Volatile Organic Compounds (VOC)

Compliance with the VOC content and usage limitations contained in Conditions D.1.2 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer. IDEM, OAM, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.1.9 Particulate Matter (PM)

The dry filters for PM control shall be in operation at all times when coating spray booth E12, E13, E14 or E31 is in operation.

D.1.10 Monitoring

(a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray while one or more of the booths are in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(b) Monthly inspections shall be performed of the coating emissions from the stack and the

presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emissions, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.11 Record Keeping Requirements

(a) To document compliance with Condition D.1.2, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be complete and sufficient to establish compliance with the VHAP usage limits established in Condition D.1.2.

(1) Certified Product Data Sheet for each finishing material, thinner, contact adhesive and strippable booth coating.

(2) The HAP content in pounds of VHAP per pounds of solids, as applied, for all finishing materials and contact adhesives used.

(3) The VOC content in pounds of VOC per pounds of solids, as applied, for each strippable coating used.

(4) The VHAP content in weight percent of each thinner used.

(5) When the averaging compliance method is used, copies of the averaging calculations for each month as well as the data on the quantity of coating and thinners used to calculate the average.

(b) To document compliance with Condition D.1.3, the Permittee shall maintain records demonstrating actions have been taken to fulfill the Work Practice Implementation Plan.

(c) To document compliance with Conditions D.1.9 and D.1.10, the Permittee shall maintain a log of weekly overspray observations, daily and monthly inspections, and those additional inspections prescribed by the Preventive Maintenance Plan.

(d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.12 Reporting Requirements

(a) An Initial Compliance Report to document compliance with Condition D.1.2 and the Certification form, shall be submitted within sixty (60) days following the compliance date of December 7, 1998. The Initial Compliance Report must include data from the entire month that the compliance date falls.

(b) A semi-annual Continuous Compliance Report to document compliance with Condition D.1.2 and the Certification form, shall be submitted within thirty (30) days after the end of the six (6) months being reported.

The six (6) month periods shall cover the following months:

(1) January 1 through June 30.

(2) July 1 through December 31.

(c) The reports required in (a), and (b) of this condition shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

SECTION D.4 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)] - Insignificant Activities

(a) Woodworking processes in the furniture manufacturing plant, primarily for design purposes. (326 IAC 6-3).

(b) Five (5) downdraft sanding tables, known as E35 - E39, equipped with dual dry filters for particulate matter control, exhausted through Stacks S15 - S19, capacity: 180 square feet of wood furniture per hour. (326 IAC 6-3)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.4.1 Particulate Matter (PM) [326 IAC 6-3]

Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from woodworking processing and shall not exceed allowable PM emission rate based on the following equation:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

Compliance Determination Requirement

D.4.2 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

The Permittee is not required to test these facilities by this permit. However, IDEM may require compliance testing when necessary to determine if these facilities are in compliance. If testing is required by IDEM, compliance with the PM limit specified in Condition D.4.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

Indiana Department of Environmental Management
Office of Air Management

Technical Support Document (TSD) for a Part 70
Minor Source Modification

Source Background and Description

Source Name:	**R. M. Wieland Co.**
Source Location:	**13737 Main Street, Grabill, Indiana 46741**
County:	**Allen**
SIC Code:	**2511, 2521**
Operation Permit No.:	**T 003-7733-00169**
Operation Permit Issuance Date:	**February 19, 1999**
Minor Source Modification No.:	**003-10777-00169**
Permit Reviewer:	**Mark L. Kramer**

The Office of Air Management (OAM) has reviewed a modification application from R. M. Wieland Co. relating to the construction of the following emission units and pollution control devices:

(a) One (1) spray booth, known as E31, equipped with HVLP spray applicators and dry filters for overspray control, exhausted through Stack S14, capacity: 180 square feet of wood furniture per hour.

and the following new insignificant activities:

(b) Two (2) drying ovens, known as E32 and E33, exhausted through Stack S4, capacity: 180 square feet of wood furniture per hour, each.

(c) One (1) air dry cabinet, known as E34, exhausted through Stack S4, capacity: 180 square feet of wood furniture per hour, capacity: 180 square feet of wood furniture per hour.

(d) Five (5) downdraft sanding tables, known as E35 - E39, equipped with dual dry filters for particulate matter control, exhausted through Stacks S15 - S19, capacity: 180 square feet of wood furniture per hour. (326 IAC 6-3)

(e) Five (5) HVLP spray applicators for coating wood furniture.

History

On March 22, 1999, R. M. Wieland Co. submitted an application to the OAM requesting to add an additional surface coating booth and insignificant activities. R. M. Wieland Co. was issued a Part 70 permit on February 19, 1999.

Source Definition

This wood furniture manufacturing company consists of two (2) plants:

(a) Plant 1, the sawmill, is located at 13802 Sawmill Road, Grabill, Indiana; and

(b) Plant 2, the furniture manufacturing plant, is located at 13737 Main Street, Grabill, Indiana.

One (1) Part 70 permit was issued to the sawmill and furniture manufacturing source.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (EF)
S14	Spray Booth, E31	22.0	2.0	8,750	70

Recommendation

The staff recommends to the Commissioner that the Minor Source Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on March 22, 1999. Additional information was received on June 24 and 29, 1999.

Emission Calculations

See pages 1 - 3 of 3 of Appendix A of this document for detailed emissions calculations.

Potential To Emit of Modification

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA."

This table reflects the PTE before controls for E31. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	0.896
PM_{10}	0.896
SO_2	0.000
VOC	19.1
CO	0.000
NO_X	0.000

HAPs	Potential To Emit (tons/year)
Xylene	0.670
Toluene	0.092
Formaldehyde	0.011
TOTAL	0.773

Justification for Modification

The Part 70 Operating Permit is being modified through a Part 70 Minor Source Modification. This modification is being performed pursuant to 326 IAC 2-7-10.5(d)(4). This rule states that modifications that have a potential to emit less than twenty-five (25) tons per year of VOC and less than five (5) tons of PM_{10}.

County Attainment Status

The source is located in Allen County.

Pollutant	Status
PM_{10}	attainment
SO_2	attainment
NO_2	attainment
Ozone	attainment
CO	attainment
Lead	attainment

Volatile organic compounds (VOC) and oxides of nitrogen (NO_x) are precursors for the formation of ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. Allen County has been designated as attainment or unclassifiable for ozone.

Source Status

Existing Source PSD or Emission Offset Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/year)
PM	16.7
PM_{10}	16.7
SO_2	0.00
VOC	47.1
CO	0.00
NO_X	0.00

(a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of the 28 listed source categories.

(b) The existing potential single HAP and combination of HAPs are greater than ten (10) and twenty-five (25) tons per year and therefore the source is a Part 70 source.

(c) These emissions are based upon Technical Support Document for the Part 70 Permit, T 003-7733-00169.

Potential to Emit of Modification After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 source modification.

	Potential to Emit (tons/year)						
Process/facility	PM	PM_{10}	SO_2	VOC	CO	NO_X	HAPs
Spray Booth, E31	0.045	0.045	0.000	19.1	0.000	0.000	0.773
Total Emissions	0.045	0.045	0.000	19.1	0.000	0.000	0.773
PSD Threshold Level	250	250	250	250	250	250	-

This modification to an existing minor stationary source is not major because the emission increase is less than the PSD threshold level. Therefore, pursuant to 326 IAC 2-2 and 40 CFR 52.21, the PSD requirements do not apply.

Federal Rule Applicability

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.

(b) This wood furniture coating operation is subject to the National Emission Standards for Hazardous Air Pollutants, 326 IAC 14, (40 CFR 63 Subpart JJ (National Emission Standards for Wood Furniture Manufacturing Operations)).

The provisions of 40 CFR 63 Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR 63 Subpart JJ.

State Rule Applicability - Individual Facilities

326 IAC 2-1-3.4 (New source toxics control)

The spray booth, known as E31, has a potential to emit a single HAP of less than ten (10) tons per year and the combination of all HAPs of less than twenty-five (25) tons per year, however since the existing source is already subject to the requirement of 40 CFR 63 Subpart JJ (National Emission Standards for Wood Furniture Manufacturing Operations), E31 will also be subject to this NESHAP.

326 IAC 6-3-2 (Process Operations)

The particulate matter (PM) from the spray booth, known as E31, shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

The dry filters shall be in operation at all times that the spray booth is in operation, in order to comply with this limit.

326 IAC 8-1-6 (New facilities; general reduction requirements)

Since the spray booth does not have the potential to emit more than twenty five (25) tons per year of VOC, this rule is not applicable.

326 IAC 8-2-12 (Wood Furniture and Cabinet Coating)

Pursuant to 326 IAC 8-2-12, the proposed spray booth, E31, to be constructed after July 1, 1990 may have actual VOC emissions exceeding fifteen (15) pounds per day shall have the surface coatings applied to wood furniture and/or wood components by utilizing one or more of the following application methods:

Airless Spray Application	Air-Assisted Airless Spray Application
Electrostatic Spray Application	Electrostatic Bell or Disc Application
Heated Airless Spray Application	Roller Coating
Brush or Wipe Application	Dip-and-Drain Application
High-Volume Low-Pressure HVLP	Aerosol Spray Cans

High-volume low-pressure spray is an acceptable alternative application of air-assisted airless spray. High-volume low-pressure (HVLP) spray means technology used to apply coating to a substrate by means of coating application equipment which operates between one-tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.

The HVLP applicators used in E31 comply with this rule.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAM, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement

action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The spray booth, known as E31, has applicable compliance monitoring conditions as specified below:

(a) The dry filters for PM control shall be in operation at all times when spray booth is in operation.

(b) Daily inspections shall be performed to verify the orientation and integrity of the dry filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the spray booth Stacks S14 while the spray booth is in operation.

(c) Monthly inspections shall be performed of the coating emissions from the stacks and the presence of overspray on the rooftops and the nearby ground.

These monitoring conditions are necessary to show compliance because the dry filters must operate properly to ensure compliance with 326 IAC 6-3 (Process Operations) and 326 IAC 2-7 (Part 70).

Proposed Changes

The permit language is changed to read as follows (deleted language appears as ~~strikeouts~~, new language appears in **bold)**:

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

(a) One (1) sealer coat spray booth, identified as E12, with a maximum capacity of 445.21 pounds of wood pieces per hour, using dry filters for particulate control, and exhausting to stack S1.

(b) One (1) top coat spray booth, identified as E13, with a maximum capacity of 445.21 pounds of wood pieces per hour, using dry filters for particulate control, and exhausting to stack S2.

(c) One (1) finish coat spray booth, identified as E14, with a maximum capacity of 222.6 pounds of wood pieces per hour, using dry filters for particulate control, and exhausting to stack S3.

(d) Six (6) adhesive spray guns, two (2) high volume-low pressure (HVLP), identified as E1 and E2, and four (4) air atomized, identified as E11, E15, E16, and E17, each with a maximum capacity of 400 square feet of foam glued per hour, exhausting to vent V8.

(e) Four (4) adhesive spray guns, air atomized, identified as E3, E4, E5, and E6, each with a maximum capacity of 400 square feet of foam glued per hour, exhausting to vent V6.

(f) Five (5) adhesive spray guns, air atomized, identified as E7, E8, E9, E10 and E29, each with a maximum capacity of 400 square feet of foam glued per hour, exhausting to vent V7.

(g) One (1) sawmill including various woodworking equipment with particulate matter controlled by two (2) baghouses, BH1 and BH3, exhausting through vents S14 and S15 into the building; one (1) spray booth type enclosure with a dry filter array, exhausting through vent S17 into the building; and one (1) cyclone, CY1, exhausting through vent S16 into the building.

(h) One (1) finish coat spray booth, identified as E30, to be constructed within eighteen (18) months, with a maximum capacity of 222.6 pounds of wood pieces per hour, using dry filters for particulate control, and exhausting to stack S3.

(i) One (1) spray booth, known as E31, equipped with HVLP spray applicators and dry filters for overspray control, exhausted through Stack S14, capacity: 180 square feet of wood furniture per hour.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

Other activities or categories not previously identified with potential, uncontrolled emissions equal to or less than thresholds require listing only. Pb 0.6 ton per year or 3.29 pounds per day, SO_2 5 pounds per hour or 25 pounds per day. NO_x 5 pounds per hour or 25 pounds per day, CO 25 pounds per day, PM 5 pounds per hour or 25 pounds per day, VOC 3 pounds per hour or 15 pounds per day.

(a) Woodworking processes in the furniture manufacturing plant, primarily for design purposes. **(326 IAC 6-3).**

(b) Five (5) downdraft sanding tables, known as E35 - E39, equipped with dual dry filters for particulate matter control, exhausted through Stacks S15 - S19, capacity: 180 square feet of wood furniture per hour. (326 IAC 6-3)

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

(a) One (1) sealer coat spray booth, identified as E12, with a maximum capacity of 445.21 pounds of wood pieces per hour, using dry filters for particulate control, and exhausting to stack S1.

(b) One (1) top coat spray booth, identified as E13, with a maximum capacity of 445.21 pounds of wood pieces per hour, using dry filters for particulate control, and exhausting to stack S2.

(c) One (1) finish coat spray booth, identified as E14, with a maximum capacity of 222.6 pounds of wood pieces per hour, using dry filters for particulate control, and exhausting to stack S3.

(d) Six (6) adhesive spray guns, two (2) high volume-low pressure (HVLP), identified as E1 and E2, and four (4) air atomized, identified as E11, E15, E16, and E17, each with a maximum capacity of 400 square feet of foam glued per hour, exhausting to vent V8.

(e) Four (4) adhesive spray guns, air atomized, identified as E3, E4, E5, and E6, each with a maximum capacity of 400 square feet of foam glued per hour, exhausting to vent V6.

(f) Five (5) adhesive spray guns, air atomized, identified as E7, E8, E9, E10 and E29, each with a maximum capacity of 400 square feet of foam glued per hour, exhausting to vent V7.

(i) One (1) spray booth, known as E31, equipped with HVLP spray applicators and dry filters for overspray control, exhausted through Stack S14, capacity: 180 square feet of wood furniture per hour.

D.1.4 Particulate Matter (PM) [326 IAC 6-3-2(c)]

The PM from each of the coating spray booths, E12, E13, ~~and~~ E14 **and E31** shall each not exceed the pound per hour emission rate established as E in the following formula:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.1.5 Volatile Organic Compounds (VOC) [326 IAC 8-2-12]

Pursuant to 326 IAC 8-2-12 (Wood Furniture and Cabinet coating), the surface coatings applied to wood furniture and/or wood components in spray booth, E31, shall utilize one or more of the following application methods:

Airless Spray Application	**Air-Assisted Airless Spray Application**
Electrostatic Spray Application	**Electrostatic Bell or Disc Application**
Heated Airless Spray Application	**Roller Coating**
Brush or Wipe Application	**Dip-and-Drain Application**
High-Volume Low-Pressure HVLP	**Aerosol Spray Cans**

High-volume low-pressure spray is an acceptable alternative application of air-assisted airless spray. High-volume low-pressure (HVLP) spray means technology used to apply coating to a substrate by means of coating application equipment which operates between one-tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.

D.1.~~5~~**6** Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for ~~this facility~~ **these facilities** and any control devices.

Compliance Determination Requirements

D.1.~~6~~**7** Testing Requirements [326 IAC 2-7-6(1),(6)] [40 CFR 63]

(b) Pursuant to 40 CFR 63, Subpart JJ, if the Permittee elects to demonstrate compliance using 63.804(a)(3) or 63.804(c)(2) or 63.804(d)(3) or 63.804(e)(2), performance testing must be conducted in accordance with 40 CFR 63, Subpart JJ and 326 IAC 3-6.

(c) The Permittee is not required to test these facilities by this permit. IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the VOC limit specified in Condition D.1.2 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

D.1.~~7~~**8** Volatile Organic Compounds (VOC)

Compliance with the VOC content and usage limitations contained in Conditions D.1.2 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer. IDEM, OAM, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.1.~~8~~**9** Particulate Matter (PM)

The dry filters for PM control shall be in operation at all times when coating spray booth E12, E13, ~~or~~ E14 **or E31** is in operation.

D.1.~~9~~**10** Monitoring

(a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray while one or more of the booths are in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(b) Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emissions, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.~~10~~**11** Record Keeping Requirements

(a) To document compliance with Condition D.1.2, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be complete and sufficient to establish compliance with the VHAP usage limits established in Condition D.1.2.

(1) Certified Product Data Sheet for each finishing material, thinner, contact adhesive and strippable booth coating.

(2) The HAP content in pounds of VHAP per pounds of solids, as applied, for all finishing materials and contact adhesives used.

(3) The VOC content in pounds of VOC per pounds of solids, as applied, for each strippable coating used.

(4) The VHAP content in weight percent of each thinner used.

(5) When the averaging compliance method is used, copies of the averaging calculations for each month as well as the data on the quantity of coating and thinners used to calculate the average.

(b) To document compliance with Condition D.1.3, the Permittee shall maintain records demonstrating actions have been taken to fulfill the Work Practice Implementation Plan.

(c) To document compliance with Conditions D.1.~~8~~**9** and D.1.~~9~~**10**, the Permittee shall maintain a log of weekly overspray observations, daily and monthly inspections, and those additional

inspections prescribed by the Preventive Maintenance Plan.

(d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.1~~1~~**2** Reporting Requirements

(a) An Initial Compliance Report to document compliance with Condition D.1.2 and the Certification form, shall be submitted within sixty (60) days following the compliance date of December 7, 1998. The Initial Compliance Report must include data from the entire month that the compliance date falls.

(b) A semi-annual Continuous Compliance Report to document compliance with Condition D.1.2 and the Certification form, shall be submitted within thirty (30) days after the end of the six (6) months being reported.

The six (6) month periods shall cover the following months:

(1) January 1 through June 30.

(2) July 1 through December 31.

(c) The reports required in (a), and (b) of this condition shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

SECTION D.4 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)] - Insignificant Activities

(a) Woodworking processes in the furniture manufacturing plant, primarily for design purposes. (326 IAC 6-3).

(b) Five (5) downdraft sanding tables, known as E35 - E39, equipped with dual dry filters for particulate matter control, exhausted through Stacks S15 - S19, capacity: 180 square feet of wood furniture per hour. (326 IAC 6-3)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.4.1 Particulate Matter (PM) [326 IAC 6-3]

Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from woodworking processing and shall not exceed allowable PM emission rate based on the following equation:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10\ P^{0.67}$$

where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

Compliance Determination Requirement

D.4.2 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

The Permittee is not required to test these facilities by this permit. However, IDEM may require compliance testing when necessary to determine if these facilities are in compliance. If testing is required by IDEM, compliance with the PM limit specified in Condition D.4.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

Conclusion

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Minor Source Modification No. 003-10777-00169.

Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations

Company Name: R. M. Wieland Co.
Address City IN Zip: 13737 Main Street, Grabill, Indiana 46741
Source Modification: 003-10777
Plt ID: 003-00169
Reviewer: Mark L. Kramer
Date: March 22, 1999

Material	Density (lbs/gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (units/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC (pounds per hour)	Potential VOC (pounds per day)	Potential VOC (tons per year)	Particulate Potential (tons/yr)	lbs VOC/gal solids	Transfer Efficiency
E31 Spray Booth on Composite																
Sealer 6502 Fast Dry	7.48	77.90%	0.0%	77.9%	0.0%	15.80%	0.01450	12.000	5.83	5.83	1.01	24.33	4.44	0.31	36.88	75%
Sealer Catalyst C266	8.17	69.00%	0.0%	69.0%	0.0%	23.00%	0.01450	12.000	5.64	5.64	0.98	23.54	4.30	0.48	24.51	75%
Thinner Blend 2991	7.072	96.35%	0.0%	96.4%	0.0%	0.00%	0.02900	12.000	6.81	6.81	2.37	56.91	10.39	0.10	n/a	75%
							0.05800									
E31 Spray Booth on Wood - Leg																
Orange Permatone 14-2003	6.73	96.35%	0.0%	96.4%	0.0%	1.96%	0.00118	450.000	6.48	6.48	3.44	82.64	15.08	0.14	330.83	75%
E31 Spray Booth on Wood - Arm																
Orange Permatone 14-2003	6.73	96.35%	0.0%	96.4%	0.0%	1.96%	0.00725	90.000	6.48	6.48	4.23	101.54	18.53	0.18	330.83	75%
									PM	Contol Efficiency	95.00%					
State Potential Emissions				**Add worst case coating to all solvents**						**Uncontrolled**		**4.37**	**104.78**	**19.12**	**0.896**	
										Controlled		**4.37**	**104.78**	**19.12**	**0.045**	

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lbs/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lbs/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

Appendix A: Emission Calculations
HAP Emission Calculations

Company Name: R. M. Wieland Co.
Address City IN Zip: 13737 Main Street, Grabill, Indiana 46741
Source Modification: 003-10777
Plt ID: 003-00169
Reviewer: Mark L. Kramer
Date: March 22, 1999

Material	Density (lbs/gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % Formaldehyde	Weight %	Xylene Emissions (tons/yr)	Toluene Emissions (tons/yr)	Formaldehyde Emissions (tons/yr)
E31 Spray Booth on Composite										
Sealer 6502 Fast Dry	7.48	0.014500	12.00	4.10%	1.40%	0.20%	0.00%	0.23	0.08	0.01
Sealer Catalyst C266	8.17	0.014500	12.00	7.00%	0.20%	0.00%	0.00%	0.44	0.01	0.00
Thinner Blend 2991	7.072	0.029000	12.00	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00
E31 Spray Booth on Wood - Leg										
Orange Permatone 14-2003	6.73	0.001180	450.00	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00
E31 Spray Booth on Wood - Arm										
Orange Permatone 14-2003	6.73	0.007250	90.00	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00
Total State Potential Emissions								**0.670**	**0.092**	**0.011**

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lbs/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

Appendix A: Emission Calculations
Baghouse Operations

Company Name: R. M. Wieland Co.
Address City IN Zip: 13737 Main Street, Grabill, Indiana 46741
Source Modification: 003-10777
Plt ID: 003-00169
Reviewer: Mark L. Kramer
Date: March 22, 1999

Unit ID	Control Efficiency (%)	Grain Loading per Actual Cubic foot of Outlet Air (grains/cub. ft.)	Gas or Air Flow Rate (acfm.)	Emission Rate before Controls (lb/hr)	Emission Rate before Controls (tons/yr)	Emission Rate after Controls (lb/hr)	Emission Rate after Controls (tons/yr)
E35	99.5%	0.0012	1750.0	3.60000	15.76800	0.01800	0.07884
E36	99.5%	0.0012	1750.0	3.60000	15.76800	0.01800	0.07884
E37	99.5%	0.0012	1750.0	3.60000	15.76800	0.01800	0.07884
E38	99.5%	0.0012	1750.0	3.60000	15.76800	0.01800	0.07884
E39	99.5%	0.0012	1750.0	3.60000	15.76800	0.01800	0.07884
			Total	**18.00000**	**78.84000**	**0.09000**	**0.39420**

Methodology

Emission Rate in lbs/hr (after controls) = (grains/cub. ft.) ((cub. ft./min.) (60 min/hr) (lb/7000 grains)
Emission Rate in tons/yr = (lbs/hr) (8760 hr/yr) (ton/2000 lb)

Emission Rate in lbs/hr (before controls) = Emission Rate (after controls): (lbs/hr)/(1-control efficiency)
Emission Rate in tons/yr = (lbs/hr) (8760 hr/yr) (ton/2000 lb)

Allowable Rate of Emissions

Process Rate (lbs/hr)	Process Weight Rate (tons/hr)	Allowable Emissions (lbs/hr)	Allowable Emissions (tons/yr)
1200	0.60	2.91	12.8

Methodology

Allowable Emissions = 4.10(Process Weight Rate)^0.67